UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/044,665	10/23/2001	Ramesh Krishnamurthy	M-11999 US	9415

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DAVIS, CYNTHIA L

ART UNIT	PAPER NUMBER
2665	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/044,665	KRISHNAMURTHY, RAMESH
	Examiner	Art Unit
	Cynthia L. Davis	2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 January 2006*.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-76* is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-76* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a)☐ All   b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments filed 1/5/2006 have been fully considered but they are not

persuasive.   Regarding applicant's arguments to claims 1, 20, 39, and 58, the

Hariharasubrahmanian reference discloses communication devices that can predict the

contents of packets and respond to them before they are received. In the reference, the

network element that receives the "sets of packets" is comparable to the second

network element of the claim; the element that sent the "sets of packets" is comparable

to the first network element which expects the first response of the claim. The second

network element anticipates the responses to the "sets of packets" sent by the first

network element if those packets require a response; that response which it sends is

the "first response" of the claim. There would be no need to respond to the packets if

no response was expected by the first network element, or if the packet did not require

a response. The elements may respond to the sets of packets before all the packets

have been received; being able to respond implies being able to determine the

expected contents of the response. The reference reads on the claim language.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can

be found in a prior Office action.

2.   Claims 1-6, 20-25, 39-44, and 58-63 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Balazinski in view of Hariharasubrahmanian.

Regarding claim 1, receiving a first configuration request packet at a first network element for a network connection from a second network element and responding with a first packet is disclosed in Balazinski, paragraph 11. Determining whether said first network element expects said second network element to send a first response to said first packet, and if said first response to said first packet is expected by said first network element, determining expected contents of said first response, and if said expected contents of said first response to said first packet require a response, responding with a second packet before receiving said first response is missing from Balazinski. However, Hariharasubrahmanian discloses in column 2, lines 64-67, predicting the expected response to a packet and sending the response before the packet is received, so as to use network resources more efficiently. It would have been obvious to one skilled in the ad at the time of the invention to predict the response to the incoming first response and send it before receipt of the first response. The motivation would be to speed up negotiation (see Hariharasubrahmanian, column 2, line 65, and Balazinski, paragraph 15).

Regarding claim 20, means for receiving a first configuration request packet at a first network element for a network connection from a second network element and responding with a first packet is disclosed in Balazinski, paragraph 11. Means for determining whether said first network element expects said second network element to send a first response to said first packet, and if said first response to said first packet is expected by said first network element, means for determining expected contents of said first response, and if said expected contents of said first response to said first

packet require a response, means for responding with a second packet before receiving

said first response is missing from Balazinski. However, Hariharasubrahmanian

discloses in column 2, lines 64-67, predicting the expected response to a packet and

sending the response before the packet is received, so as to use network resources

more efficiently. It would have been obvious to one skilled in the art at the time of the

invention to predict the response to the incoming first response and send it before

receipt of the first response. The motivation would be to speed up negotiation (see

Hariharasubrahmanian, column 2, line 65. and Balazinski, paragraph 15).

Regarding claim 39, a processor and a network interface coupled to said

processor is disclosed in Balazinski, paragraph 11 (mobile cellular stations and PDSNs

have these things). Wherein said processor is configured to receive a first configuration

request packet at a first network element for a network connection from a second

network element and responding with a first packet is disclosed in Balazinski, paragraph

11. Determining whether said first network element expects said second network

element to send a first response to said first packet, and if said first response to said

first packet is expected by said first network element, determine expected contents of

said first response, and if said expected contents of said first response to said first

packet require a response, respond with a second packet before receiving said first

response is missing from Balazinski. However, Hariharasubrahmanian discloses in

column 2, lines 64-67, predicting the expected response to a packet and sending the

response before the packet is received, so as to use network resources more efficiently.

It would have been obvious to one skilled in the art at the time of the invention to predict

the response to the incoming first response and send it before receipt of the first

response. The motivation would be to speed up negotiation (see

Hariharasubrahmanian, column 2, line 65, and Balazinski, paragraph 15).

Regarding claim 58, a computer program product for negotiating point-to-point

protocol (PPP), encoded in computer readable media, said program product comprising

a set of instructions executable on a computer system is disclosed in Balazinski,

paragraph 11 (cellular mobile stations and PDSNS contain computer readable media

holding instructions). Wherein said set of instructions configured to receive a first

configuration request packet at a first network element for a network connection from a

second network element and responding with a first packet is disclosed in Balazinski,

paragraph 11. Determining whether said first network element expects said second

network element to send a first response to said first packet, and if said first response to

said first packet is expected by said first network element, determine expected contents

of said first response, and if said expected contents of said first response to said first

packet require a response, respond with a second packet before receiving said first

response is missing from Balazinski. However, Hariharasubrahmanian discloses in

column 2, lines 64-67, predicting the expected response to a packet and sending the

response before the packet is received, so as to use network resources more efficiently.

It would have been obvious to one skilled in the art at the time of the invention to predict

the response to the incoming first response and send it before receipt of the first

response. The motivation would be to speed up negotiation (see

Hariharasubrahmanian, column 2, line 65, and Balazinski, paragraph 15).

Regarding claims 2, 21, 40, and 59, sending a second configuration packet to said second network element is disclosed in paragraph 12 of Balazinski.

Regarding claims 3, 22, 41, and 60, if said first configuration request packet includes at least one unsupported option, responding with a configuration reject packet is disclosed in paragraph 12 of Balazinski.

Regarding claims 4, 23, 42, and 61, if said first configuration request packet includes at least one supported option having at least one unsupported value, responding with at least one configuration-NAK packet for said supported option having at least one unsupported value is disclosed in paragraph 12 of Balazinski.

Regarding claims 5, 24, 43, and 62, said configuration-NAK packet includes at least one suggested supported value for said supported option having at least one unsupported value is disclosed in paragraph 12 of Balazinski.

Regarding claims 6, 25, 44, and 63, responding with a first configuration-ACK packet having said supported option with said suggested supported value is disclosed in paragraph 12 of Balazinski. The response occurring before receiving a response to said configuration-NAK packet is missing from Balazinski. However, Hariharasubrahmanian discloses in column 2, lines 64-67, predicting the expected response to a packet and sending the response before the packet is received, so as to use network resources more efficiently. It would have been obvious to one skilled in the art at the time of the invention to predict the response to the incoming first response and send it before receipt of the first response. The motivation would be to speed up negotiation (see Hariharasubrahmanian, column 2, line 65, and Balazinski, paragraph 15).

3.   Claims 7-12, 14-17, 19, 26-31, 33-36, 38, 45-50, 52-55, 57, 64-69, 71-74, and 76

are rejected under 35 U.S.C. 103(a) as being unpatentable over Balazinski in view of

Hariharasubrahmanian in further view of Hong.

Regarding claims 7, 26, 45, and 64, starting a re-send timer is missing from

Balazinski. However, Hong discloses a retransmission timer in column 27, lines 43-53.

It would have been obvious to one skilled in the art at the time of the invention to start a

re-send timer. The motivation would be to retransmit the packet if there is no response

within a certain time, and guard against unreceived packets in the system. Regarding

claims 8, 27, 46, and 65, a value of said re-send timer is dynamically determined

according to a network traffic condition is missing from Balazinski. However, Hong

discloses a dynamically calculated retransmission timer in column 27, lines 63-65. It

would have been obvious to one skilled in the art at the time of the invention to

dynamically determine the timer value according to network traffic conditions. The

motivation would be to have the timer value be greater than the round- trip time in the

network, so retransmissions do not occur before a response could have been received.

Regarding claims 9, 28, 47, and 66, setting a state of said network connection to

'ACK-sent' after sending said first configuration-ACK packet is not specifically disclosed

in Balazinski. However, sending the ACK is disclosed in paragraph 11. It would have

been obvious to one skilled in the art at the time of the invention to set the connection

state to ACK-sent after sending the first ACK. The motivation would be to have the

connection state describe the current state of the connection.

Regarding claims 10, 29, 48, and 67, setting said state of said network

connection to 'open' after sending said first configuration-ACK packet is not specifically

disclosed in Balazinski. However, sending the ACK is disclosed in paragraph 11. It

would have been obvious to one skilled in the ad at the time of the invention to set the

connection state to ACK-sent after sending the first ACK. The motivation would be to

have the connection state describe the current state of the connection (at that point, the

connection is open for transmissions).

Regarding claims 11, 30, 49, and 68, if said re-send timer expires before a

response to said second configuration request packet is received, re-sending said first

configuration-ACK packet, restarting said re-send timer, and repeating said steps of re-

sending and restarting until said response to said second configuration request packet

is received is missing from Balazinski. However, Hong discloses a retransmission timer

that resends packets when it expires in column 27, lines 43-53. It would have been

obvious to one skilled in the art at the time of the invention to resend the packets when

the re-send timer expires. The motivation would be to retransmit the packet if there is no

response within a certain time, and guard against unreceived packets in the system.

Regarding claims 12, 31, 50, and 69, if said response to said second

configuration request packet is received, analyzing said response to said second

configuration request packet is disclosed in paragraph 12 (all negotiation packets are

analyzed, because the system needs to know their contents).

Regarding claims 14, 33, 52, and 71, if said response to said second

configuration request packet is not said second configuration-ACK packet, resetting said

state of said network connection, and initiating conventional PPP negotiation is

disclosed in paragraph 35 of Balazinski.

Regarding claims 15, 34, 53, and 72, if said re-send timer expires before said

response to said second configuration request packet is received, re-sending said first

configuration-ACK packet, restarting said re-send timer, and repeating said steps of re-

sending and restarting until said response to said second configuration request packet

is received is missing from Balazinski. However, Hong discloses a retransmission timer

that resends packets when it expires in column 27, lines 43-53. It would have been

obvious to one skilled in the art at the time of the invention to resend the packets when

the re-send timer expires. The motivation would be to retransmit the packet if there is no

response within a certain time, and guard against unreceived packets in the system.

Resetting said state of said network connection to 'ACK-sent' is not specifically

disclosed in Balazinski. However, sending the ACK is disclosed in paragraph 11. It

would have been obvious to one skilled in the art at the time of the invention to set the

connection state to ACK-sent after resending the ACK. The motivation would be to have

the connection state describe the current state of the connection.

Regarding claims 16, 35, 54, and 73, if said response to said second

configuration request packet is received, analyzing said response to said second

configuration request packet is disclosed in paragraph 12 (all negotiation packets are

analyzed, because the system needs to know their contents).

Regarding claims 17, 36, 55, and 74, if said response to said second

configuration request packet is said second configuration-ACK packet, determining said

state of said network connection, and if said state of said network connection is not set

to 'open', setting said state of said network connection to 'open' is not specifically

disclosed in Balazinski. However, receiving the ACK is disclosed in paragraph 11. It

would have been obvious to one skilled in the art at the time of the invention to set the

connection state to ACK-sent after receiving a response ACK.

The motivation would be to have the connection state describe the current state of the

connection (at that point, the connection is open for transmissions).

Regarding claims 19, 38, 57, and 76, if said response to said second

configuration request packet is not said second configuration-ACK packet, resetting said

state of said network connection is disclosed in paragraph 35 of Balazinski.

4.   Claims 13, 18, 32, 37, 51, 56, 70, and 75 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Balazinski in view of Hariharasubrahmanian and Hong in

further view of Maggenti.

Regarding claims 13, 32, 51, and 70, if said response to said second

configuration request packet is a second configuration-ACK packet, setting said state of

said network connection to 'open' is missing from Balazinski. However, receiving a

configuration-ACK is disclosed in Balazinski, paragraph 12. Further, retransmission until

a response (in the case of this claim, the second configuration-ACK packet) is disclosed

in Hong in column 27, lines 43-53. It would have been obvious to one skilled in the art

at the time of the invention to set the connection state to open when the response to the

retransmitted configuration packet is received. The motivation would be to have the

connection state describe the state of the connection (at that point, the connection is

open for transmissions). Discarding any fudher responses is missing from Balazinski.

However, Maggenti discloses in column 14, lines 15-18, a system that ignores further

responses after one is received. It would have been obvious to one skilled in the art to

discard any further responses after the negotiation phase is completed, which it would

be after receipt of the second configuration-ACK packet. The motivation would be to not

waste resources analyzing unnecessary response packets.

Regarding claims 18, 37, 56, and 75, discarding any further responses is missing

from Balazinski. However, Maggenti discloses in column 14, lines 15-18, a system that

ignores further responses after one is received. It would have been obvious to one

skilled in the art to discard any further responses after the negotiation phase is

completed, which it would be after receipt of the second configuration-ACK packet. The

motivation would be to not waste resources analyzing unnecessary response packets.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Cynthia L. Davis whose telephone number is (571) 272-

3117. The examiner can normally be reached on 8:30 to 6, Monday to Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

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CLD
2/16/06

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